



PATENT

Attorney Docket No. 68410

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Siegler et al.
Application No.: 09/547,563
Filed: April 12, 2000

**JACK SHAFT
GARAGE DOOR OPERATOR**

Art
3634

Examiner: Curtis A. Cohen

CERTIFICATE OF MAILING

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1/9/03

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APPEAL BRIEF

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**Commissioner for Patents
Washington, D.C. 20231**

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(1) Real Party in Interest

The Chamberlain Group, Inc. is the real party in interest.

(2) Related Appeals and Interferences

None.

(3) Status of Claims

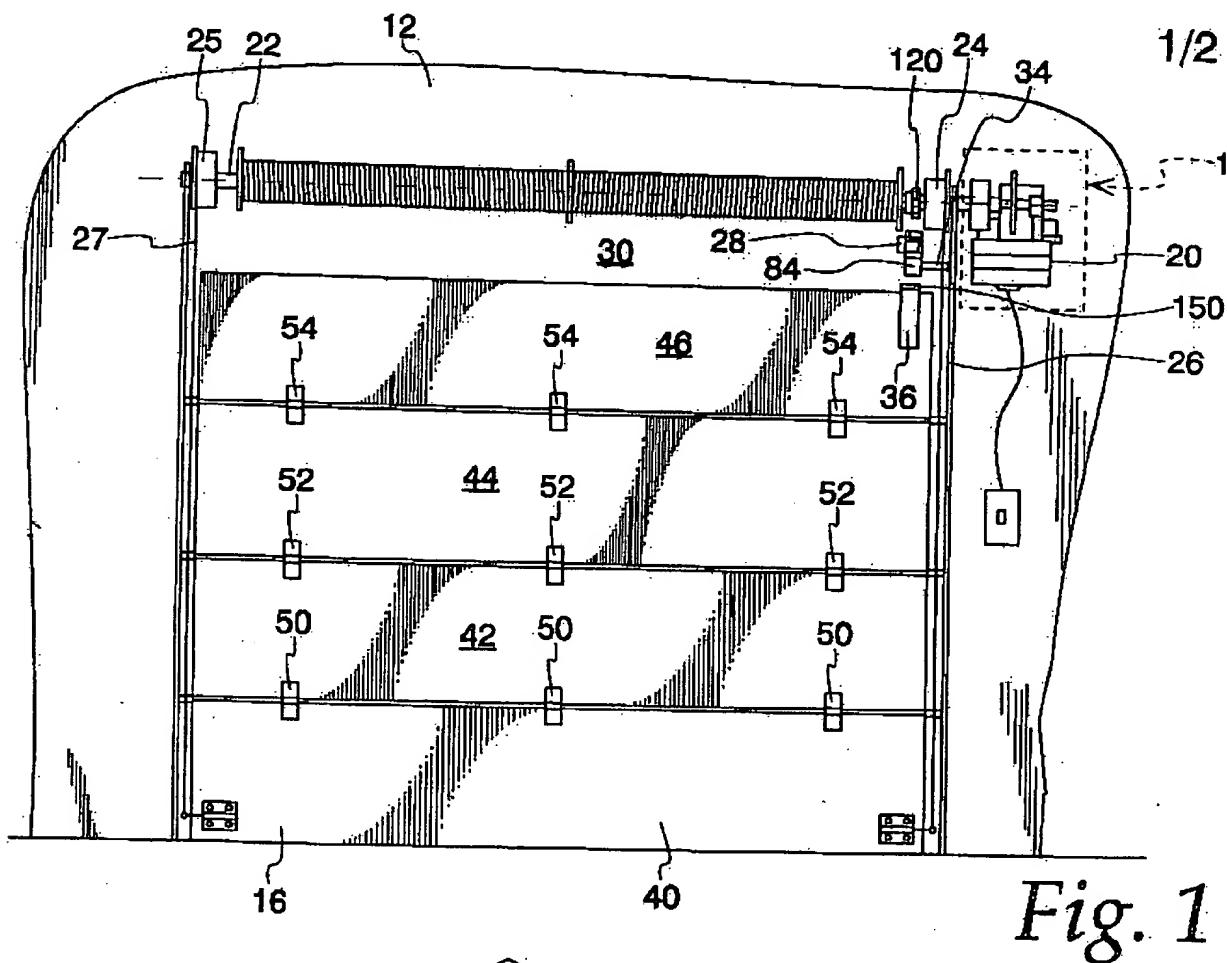
Claims 1 through 9 and claim 16 are pending with claims 1 through 4 standing allowed and claims 5 through 9 and claim 16 standing finally rejected (presuming entry of the Response filed on April 2, 2002).

(4) Status of Amendments

A Response to Final Rejection was filed on April 2, 2002. The Examiner indicated in a telephone conference on May 13, 2002 that this Response was accepted and entered. To date, the applicant has not received official notification of the status of this Response.

(5) Summary of Invention

With reference to FIG. 1 reproduced below, a movable garage door (16) is controllably moved by a jack shaft garage door operator (10) [column 3, line 2 - 4]. This operator includes a drive unit (20) and a jack shaft (22) that couples to the drive unit such that the drive unit can cause the jack shaft to turn [column 3, line 5-7]. A pull-up cable drum (24) connects to the jack shaft such that the jack shaft can drive the pull-up cable drum. A pull-up cable (26) connects to both the garage door and the pull-up cable drum such that the latter can raise and lower the former [column 3, line 7 - 9].



With reference to FIG. 2 reproduced below, a pivotable arm assembly (28) mounts proximal to the jack shaft and engages the pull-up cable.

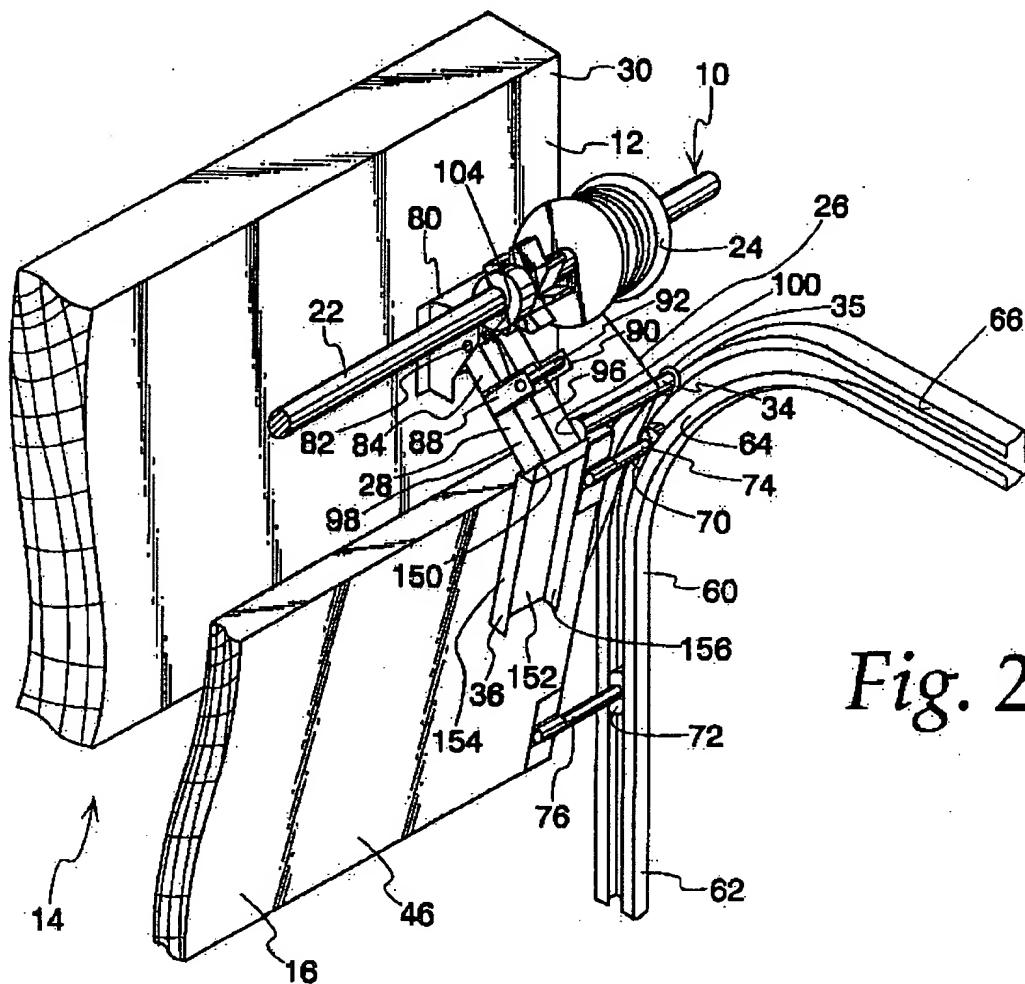
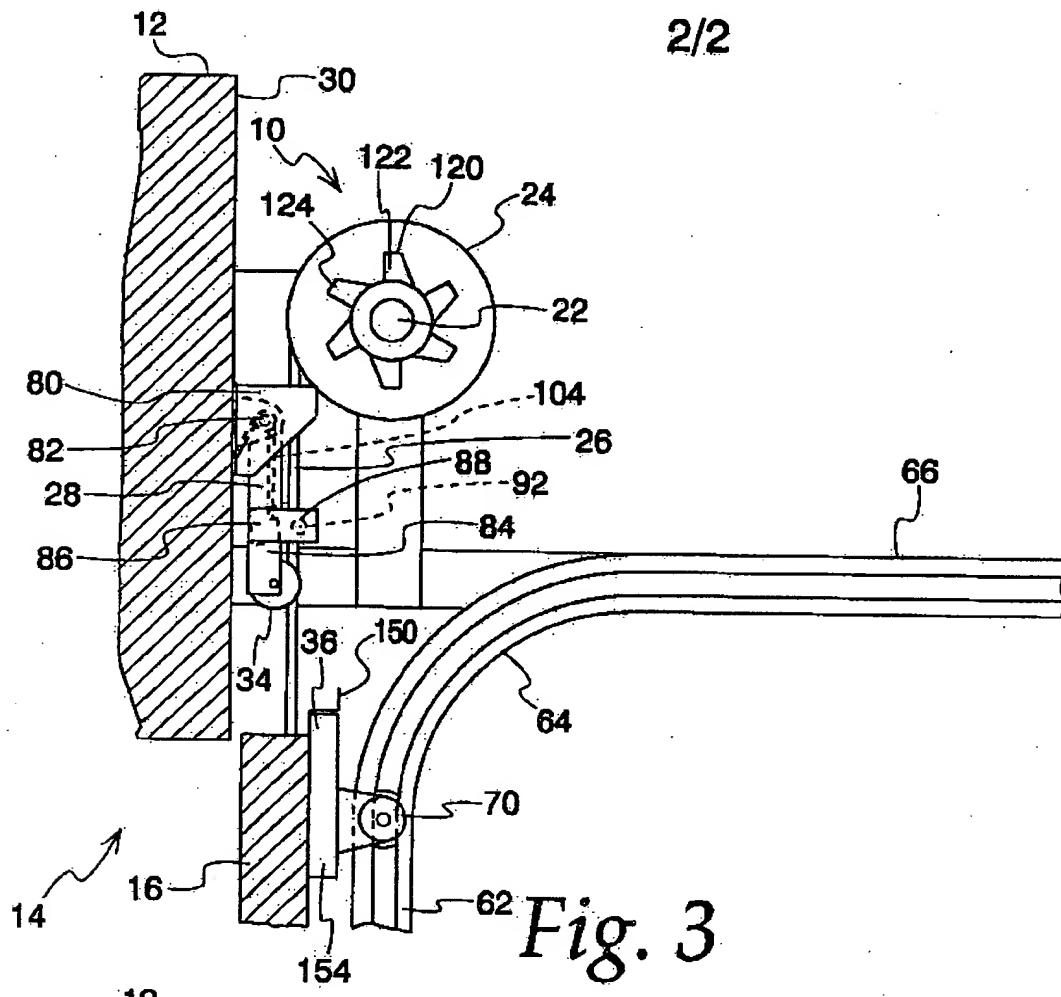
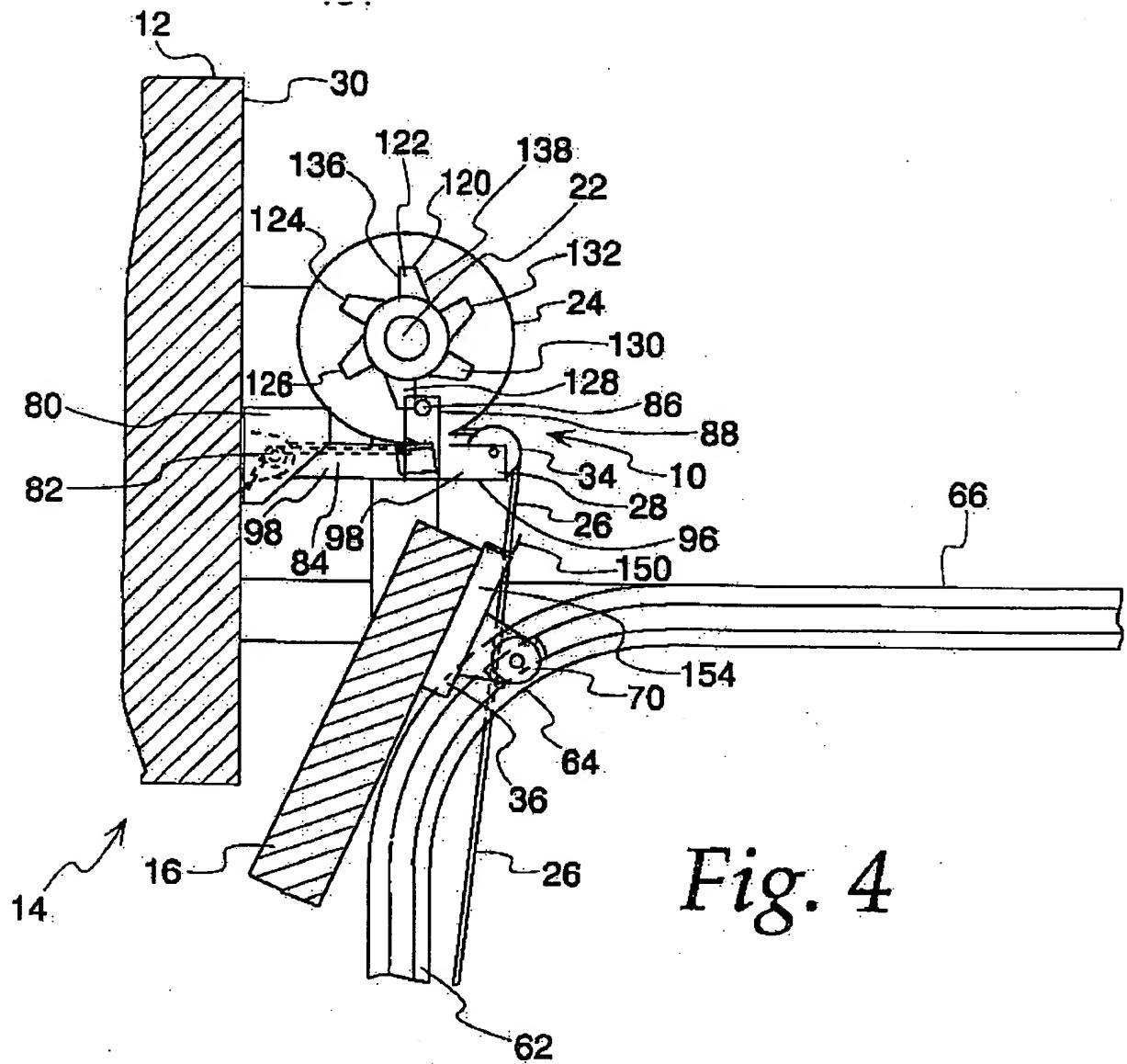


Fig. 2

As shown in FIGs. 3 and 4 reproduced below, the pivotable member includes a member (34) that engages the pull-up cable in order to hold the latter in tension [column 3, line 9 - 15].





Another mechanism (36) serves to prevent the garage door from opening when the garage door is lifted without the drive unit operating [column 3, line 15 -17]. In particular, this mechanism engages the pivotable arm to block such movement by the garage door. In one embodiment, this mechanism includes a door lock bracket (36) that engages the pivotable arm [column 4, line 1 - 6].

A shaft lock hub (120) can mount on the jack shaft such that the shaft lock hub will rotate therewith. This shaft lock hub engages a pivotable arm (84) when cable tension drops. So configured, an engagement apparatus engages the jack shaft to prevent jack shaft rotation when the pull-up cable becomes slack. In one embodiment, this engagement apparatus comprises a cross bar (92) [column 3, line 49 - 62].

(6) Issues

Claims 5 through 9 and 16 are rejected under 35 U.S.C. 251 as being an improper recapture of broadened subject matter earlier surrendered.

(7) Grouping of Claims

The applicant consents to considering all of the claims as a single group.

(8) Argument

Issues regarding improper recapture have been raised and discussed below on the record. Subsequent to a Final Rejection, the Examiner conducted an interview with applicant's representatives on March 14, 2002. During that interview, to expedite the examination process and without otherwise agreeing that the pending claims otherwise offended the rule against recapture, the applicant agreed to reinsert certain means-plus-function language in the claims. This agreed upon change was made pursuant to an amendment filed on April 2, 2002. As indicated by the Examiner in the interview summary record, this change "would appear to overcome the recapture rejection."

No other issues are presently of record. Therefore, with the only rejection of record having been duly met, the applicant respectfully submits that this application is now in suitable condition to permit a Notice of Allowance.

(9) Appendix

1. A jack shaft garage door operator for opening and closing a movable garage door, comprising:

a drive unit;

a jack shaft coupled to the drive unit to be turned thereby;

a pull-up cable drum connected to the jack shaft to be driven thereby;

a pull-up cable for connection to a movable garage door and connected to the pull-up cable drum to be raised and lowered thereby;

a pivotable arm mounted in proximity with the jack shaft and engaging the pull-up cable, said pivotable arm including a member for engaging the pull-up cable and holding it in tension, and means for engaging the jack shaft to prevent further jack shaft rotation when the pull-up cable becomes slack; and

means for preventing the garage door from opening adapted for engagement by the pivotable arm when the garage door is lifted without the drive unit operating.

2. A jack shaft garage door operator for opening and closing a movable garage door according to claim 1 wherein the means for engaging the jack shaft comprises a cross bar.

3. A jack shaft garage door operator for opening and closing a garage door according to claim 1 wherein the means for preventing the garage door from opening comprises a door lock bracket that engages the pivotable arm.

4. A jack shaft garage door operator for opening and closing a garage door according to claim 1 further comprising a shaft lock hub mounted on the jack shaft and rotatable therewith, the shaft lock hub being engaged by the pivotable arm when the cable tension drops.

5. A jack shaft garage door operator for opening and closing a movable garage door, comprising:

a drive unit;

a jack shaft coupled to the drive unit to be turned thereby;

a pull-up cable drum connected to the jack shaft to be driven thereby;

a pull-up cable for connection to a movable garage door and connected to the pull-up cable drum to be raised and lowered thereby;

a pivotable arm mounted in proximity with the jack shaft and engaging the pull-up cable, said pivotable arm including a member for engaging the pull-up cable and holding it in tension; and

means for preventing the garage door from opening adapted for engagement by the pivotable arm when the garage door is lifted without the drive unit operating.

6. A jack shaft garage door operator for opening and closing a movable garage door according to claim 5 wherein the pivotable arm comprises engagement apparatus for engaging the jack shaft to prevent further jack shaft rotation when the pull-up cable becomes slack.

7. A jack shaft garage door operator for opening and closing a movable garage door according to claim 6 wherein the engagement apparatus comprises a cross bar.

8. A jack shaft garage door operator for opening and closing a garage door according to

claim 5 wherein the means for preventing comprises a door lock bracket that engages the pivotable arm.

9. A jack shaft garage door operator for opening and closing a garage door according to claim 5 further comprising a shaft lock hub mounted on the jack shaft and rotatable therewith, the shaft lock hub being engaged by the pivotable arm when the cable tension drops.

16. A jack shaft garage door operator for opening and closing a garage door according to claim 5 further comprising a shaft lock hub mounted on the jack shaft and rotatable therewith, the shaft lock hub being engaged by the pivotable arm when the cable tension drops.

Respectfully submitted,

January 9, 2003

Date


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